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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,977	07/28/2003	Andrzej Wozniak	T2147-908626	4096
181 7590 11/29/2007 MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			EXAMINER SILVER, DAVID	
			ART UNIT 2128	PAPER NUMBER
			NOTIFICATION DATE 11/29/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/627,977

Applicant(s)

WOZNIAK, ANDRZEJ

Examiner

David Silver

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 105-118 and 130-143 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 105-118 and 130-143 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |



### **DETAILED ACTION**

1. The Instant Office Action is in response to a Request for Continued Examiner filed 9/10/2007.
2. Claims 105-118 and 130-143 are currently pending in Instant Application.

#### **Response to Arguments**

##### ***Response: Claim Objections / Claim Interpretation***

3. Claim objections and claim interpretations have been mooted by the appropriate canceling or amending of the respective claims.

##### ***Response: 35 U.S.C. § 101***

4. The 35 U.S.C. § 101 rejection of claims 105-118 has been overcome by the appropriate amendments. However, a new 35 U.S.C. § 101 rejection for claims 130-143 is presented below.

##### ***Response: 35 U.S.C. § 112***

5. The 35 U.S.C. § 112 rejections have been withdrawn, unless presented in the respective 35 U.S.C. § 112 Rejections section below with corresponding rationale for the maintaining of the rejection.

#### **Instant Office Action**

##### ***Claim Objections***

6. All dependent claims are objected to for failing to comply with US guidelines for claim formulation. Specifically, dependent claims are to start with "The", rather than "A".

##### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 130-143 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

##### **MPEP 2106 recites, in part:**

"...USPTO personnel shall review the claim to determine it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather on whether the *final* result achieved by the claimed invention is "useful, tangible, and concrete." (emphasis added)

The method claims do not produce a useful, tangible, and concrete final result. The steps of the method



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claims do not produce a useful, tangible, and concrete result. They merely recite a software algorithm, per se, which, for example, does not display, store, or otherwise provide a useful tangible output. Note exemplary claim 130 which only recites software steps and does not produce a useful tangible and concrete final result. See MPEP 2106 [R-5] (partially recited above).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 105-118 and 130-143 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the **enablement requirement**. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The following features are not enabled such that one of ordinary skill in the art could make and use the invention without undue experimentation.

- 8.1 In claim 105, what are "software simulation elements"? What are the metes and bounds of said elements?

What is "the realization" and how is it realized? What is "a machine" - is it a vehicle, a computer, mechanical, electrical, etc?

What is "a component and connection rule table"? Does this refer to a component table, or an all-in-one rule table having the components and connections?

What are "software components"? What are their "properties"? What are the metes and bounds of said properties?

- 8.2 In claim 106, what are "Global Blocks"? The remarks dated 9/10/2007 attempt to address the issue; however do **not** provide enablement support for said feature. The remarks merely state that a



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Global Block is an example of "other types of components" without stating exactly what it is.

What is a "System Block"?

8.3 In claim 107, it is unclear what is being referred to with the term "the connections", "the physical connections", "the models", and "the blocks constituting the model". Specifically, which connections?

Which physical connections? Where are the blocks being constituted? And what "model"?

8.4 In claim 108, what makes a connection "incompatible"?

8.5 In claim 111, what constitutes "other" end?

8.6 In claim 108 and 113, what is a "System Blocks"?

8.7 In claim 113, how is the configuration "polled"? What does it mean when the configuration is "polled"?

8.8 In claim 116, what is a "generic structure"? How is structure made generic?

8.9 In claim 118, what is "the interface"? What are "the servers"?

9. Claims 105-118 and 130-143 are rejected under 35 U.S.C. 112, second paragraph, as being **indefinite** for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9.1 What are the metes and bounds of the properties of "software components"?

9.2 The following claims and the respective limitations lack antecedent basis:

In claim 105, "the realization"?

In claim 107, "the connections", "the physical connections", "the models", and "the blocks constituting the model".

In claim 108, "the incompatible connection".

In claim 109 and 110, "the entries".

In claim 111, "the other end", "the port".

In claim 115, "the hash", "the signals".

In claim 116, "Ports" - which ports it is referring to? "the signals", "the software parts", "the interface



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adapters being selected".

In claim 118, "the interface", "servers" - nothing in the claim recites or implies servers.

9.3 In claim 111, what are the metes and bounds of "the other end of the port".

9.4 In claim 111, the term "other" is relative. Additionally, there is no other port mentioned.

9.5 In claim 105, the term "high" from "high level language" is a relative term which renders the claim indefinite. Applicants' remarks dated 9/10/2007 attempt to address the issue by stating that the term refers to "languages such as C or C++". This is **not** a clear, deliberate, and precise definition, nor are the languages claimed. The relativity of the instantly indefinite term is exemplified by claim 114 which states that the term "high" is higher than a language having a "level lower". What makes one language higher than another? Specifically, one may think of HDL as being a high level language, when compared relatively to register transfer logic.

9.6 In claim 116, the term "generic" renders the claim indefinite.

10. Claims 130-143 are rejected similarly as their respective counter-part "system" claims above.

Meaning, the 35 U.S.C. § 112 P1 and P2 rejections about apply equally to claims 130-143.

11. Claims not specifically mentioned are rejected by virtue of their dependency.

12. The Applicants are required to fix all other similar occurrences of the above-cited deficiencies.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 105-118 and 130-143 are rejected under 35 U.S.C. 102(e) as being anticipated by Schubert

**(US 20030069724 A1).**

As per claims 105-118, note the rejection of claims 130-143 below. The Instant Claims recite



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substantially same limitations as the below-rejected claims and are therefore rejected under same prior-art teachings.

Schubert discloses: 130. (New) A method for automatically generating a simulation model of a configuration of software simulation elements, comprising:

storing a plurality of software simulation elements, said plurality of software simulation elements provided with inter working connections so as to constitute the simulation model of an architecture, wherein the simulation model comprises models of integrated circuits for the realization of a machine that conforms to a functional specification of a configuration defined in a configuration definition file (**para 135, 142, 152, para 122**);

creating a simulation of wiring by executing stored regular expressions (**para 122**);

using the configuration definition file, a component and connection rule table, and a connection coherency rule table, wherein the component and connection rule table and the connection coherency rule table are written in a high level language, and the component and connection rule table describes properties of software components for simulating at least one of the integrated circuits (**para 122, 135, 142, 152, 18, 93, 198, 227**);

instantiating components resulting from the configuration definition file; and combining, via an HLL code generator, the parameters of the components with the connection rules of the component and connection rule table (**para 85-84**).

Schubert discloses: 131. (New) A method according to claim 130, wherein the components comprise Active Components, Monitoring and Verification Blocks, Intermediate Blocks, System Blocks, and Global Blocks (**para 15, 23, 122, 123, 138, 141, 146**).

Schubert discloses: 132. (New) A method according to claim 131, further comprising performing a conformity check of the connections by comparing an instance connection table with a table of coherency rules for the physical connections between the models chosen from the blocks constituting the model (**para 150, 163**).

Schubert discloses: 133. (New) A method according to claim 132, further comprising:



comparing the instance connection table to the connection coherency rule table to detect any incompatible connections between the ends of the connections between blocks (**para 150, 163**); and

in cases where an incompatible connection is detected, specifying and adding an adapter component (Intermediate Block) to the instance connection table, said adapter component being inserted into the incompatible connection between the components (**para 150, 163, 10, 122**).

Schubert discloses: 134. (New) A method according to claim 133, wherein the component and connection rule table includes properties of the components and contains parameters common to all of the component types and exists in the form of a table distributed into one or more associative tables, and the entries being names designating all of the possible models for the same component (**Fig 29 and description**).

Schubert discloses: 135. (New) A method according to claim 134, wherein the associative tables are adapted to contain a description either in the form of parameter sets or in the form of references to procedures that generate the required values, and wherein the entries of these associative tables comprise names designating all of the possible models for the same component, and form a character string containing predetermined special identifiers that are replaced by calculated values (**Fig 29 and description**).

Schubert discloses: 136. (New) A method according to claim 135, further comprising:

indicating, using at least three selectors, the instance to be used; and transmitting the following selectors as parameters to a constructor of an HLL object (**Fig 25 and description**): a first selector indicating a current instance (item); a second selector specifying the current instance connected to the other end of the port; and a third selector indicating a composite instance corresponding to an active Component containing an observation port (**Fig 29 and description**).

Schubert discloses: 137. (New) A method according to claim 130, further comprising:

representing, by one or more connection coherency rule tables, the rules for interconnecting the components and for inserting intermediate components; representing, by one or more component and connection rule tables, the system- level connection rules and the rules for generating connections



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between the signals; and representing, by one or more source file formatting tables, the rules for generating instances of HLL objects **(para 170)**.

Schubert discloses: 138. (New) A method according to claim 130, further comprising:

uniquely identifying, via an HLL base class, each object instantiated and polling the configuration; generating and automatically instantiating System Blocks; using tables to associate the signals connected together under a unique name of the connecting wires; and using a formatting table to generate hardware description language and HLL source files **(para 21)**.

Schubert discloses: 139. (New) A method according to claim 130, further comprising:

receiving, from an operator, a functional specification of the configuration in a high level language; and completing the functional specification with the components in a language having a level lower than said high level language **(para 88)**.

Schubert discloses: 140. (New) A method according to claim 130, further comprising:

defining, using the following entries in a hash, a Component Type; and correlating, using the following entries in the has, each Component Type to the hash, wherein said hash comprises the following: a first entry comprising a name of a hardware description language (HDL) module of a component and a name of a corresponding source file; and a second entry comprising a definition of a method for selecting the signals that are part of a Port, said definition comprising a set of entries indexed by a name of the Port; wherein said method further includes associating each said Port name with a table of regular expressions and a pointer to a signal connection procedure that controls the application of the expressions to the names of the signals of the interface of the component **(para 221, 409, 455)**.

Schubert discloses: 141. (New) A method according to claim 140, wherein

said Component Type comprises one or more Active Components having a generic structure that includes a containing Block that contains an HDL Block including an HDL description and a Block in HLL that provides access paths to HDL resources and a description of the containing block in the high level language **(para 15, 92, 99)**;



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wherein the set of signals of the HDL Block constitutes an interface of the containing Block, formed by Ports, which are arbitrary logical selections of the signals of an interface, and also formed by interface adapters which are the software parts that handle, in each Port, the two-way communication between the parts in high level language and those in hardware description language (**para 15, 92, 99**). Schubert discloses: 142. (New) A method according to claim 141, further comprising specifying the Ports in the form of regular expressions that select subsets of signals to be connected and define connection rules (**para 15, 92, 99**).

Schubert discloses: 143. (New) A method according to claim 130, further comprising generating Transfer Components which are inserted on each side of the interface between servers, said Transfer Components comprising wires for inputs and registers for outputs (**para 15, 92, 99**).

### ***Examiner Requests***

The Examiner respectfully **requires**, in the event the Applicants choose to amend or add new claims, that such claims and their limitations be directly mapped to the specification, which provides support for the subject matter. This will assist in expediting compact prosecution. MPEP 714.02 recites: "Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP § 2163.06. An amendment which does not comply with the provisions of 37 CFR 1.121(b), (c), (d), and (h) may be held not fully responsive. See MPEP § 714." Amendments not pointing to **specific support** in the disclosure may be deemed as not complying with provisions of 37 C.F.R. 1.131(b), (c), (d), and (h) and therefore held not fully responsive.

### ***Conclusion***

14. All claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 10am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

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866-217-9197 (toll-free).

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